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J. D. Woodard
Senior Vice President

the southern electric system

October 7, 1996

Docket Nos. 50-321
50-366

HL-5230

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Edwin I. Hatch Nuclear Plant
Request to Revise Technical Specifications:
Safety/Relief Valve Setpoint Change

Gentlemen:

In accordance with the provisions of 10 CFR 50.90, as required by 10 CFR 50.59(c)(1), Georgia Power Company (GPC) hereby proposes changes to the Plant Hatch Unit 1 and Unit 2 Technical Specifications, Appendix A to Operating Licenses DPR-57 and NPF-5, respectively. The proposed changes revise Surveillance Requirements (SRs) 3.1.7.7 and 3.4.3.1, and Limiting Conditions for Operation (LCOs) 3.4.3, 3.5.1, and 3.6.1.6 to increase the nominal mechanical pressure relief setpoints for all safety/relief valves (S/RVs) and allow operation with one S/RV and its associated functions inoperable. The proposed changes will reduce the potential for S/RV pilot leakage and the potential for forced outages due to an inoperable S/RV during a fuel cycle.

Enclosure 1 provides a description of and justification for each proposed change. Enclosure 2 details the bases for GPC's determination that the proposed changes do not involve a significant hazards consideration. Enclosure 3 provides page change instructions for incorporating the revised Technical Specifications pages. Following Enclosure 3 are the revised Technical Specifications pages, as well as the corresponding marked-up pages. Enclosure 4 provides, for your information, the proposed Bases pages associated with the proposed Technical Specifications changes. The revised Bases pages will be made effective concurrently with the approved Technical Specifications changes. Enclosure 5 contains a General Electric Company proprietary report which details the safety analyses performed in support of the proposed change. Enclosure 6 provides a GE affidavit for the Enclosure 5 report.

The optimum time to implement the proposed changes is during a scheduled refueling outage when all of the 11 S/RV topworks can be reset and leak tested prior to reassembly.

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change: NRC PDR 1 1 NP

The next Unit 2 refueling outage is currently scheduled for March 15, 1997, and the next Unit 1 refueling outage is scheduled for Fall 1997. Therefore, to support the upcoming Unit 2 outage, GPC requests that the NRC review and approve the amendments no later than March 7, 1997. A refueling outage on each unit will be required to implement the S/RV setpoint changes. Thus, GPC requests a deviation from the normal 30-day implementation schedule, such that once the proposed amendment is approved, it be issued with an immediate effective date, with implementation prior to startup from the respective refueling outages.

In accordance with the requirements of 10 CFR 50.91, the designated State official will be sent a copy of this letter and all applicable enclosures.

Mr. J. D. Woodard states he is Senior Vice President of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company, and to the best of his knowledge and belief, the facts set forth in this letter are true.

Sincerely,

J. D. Woodard

Sworn to and subscribed before me this 7th *day of* October, *1996.*

Notary Public

My Commission Expires: 9-14-98

JAW/eb

Enclosures:

1. Basis and Justification for Change Request
2. 10 CFR 50.92 Evaluation
3. Technical Specifications Page Change Instructions
4. Bases Changes
5. GE Report NEDC-32041P, "Safety Review for Edwin I. Hatch Nuclear Power Plant Units 1 and 2 Updated Safety/Relief Valve Performance Requirements," Revision 2 (Proprietary), April 1996.
6. GE Affidavit for NEDC-32041P

cc: (See next page.)

cc: *Georgia Power Company*
Mr. H. L. Sumner, Nuclear Plant General Manager
NORMS

U. S. Nuclear Regulatory Commission, Washington, D. C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

U. S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebneter, Regional Administrator
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

State of Georgia
Mr. J. D. Tanner, Commissioner - Department of Natural Resources

Enclosure 1

Edwin I. Hatch Nuclear Plant
Request to Revise Technical Specifications:
Safety/Relief Valve Setpoint Change

Basis for Change Request

Georgia Power Company (GPC) proposes to revise Plant Hatch Unit 1 and Unit 2 Technical Specifications to increase the nominal mechanical relief setpoints for all of the 11 safety/relief valves (SRVs) to 1150 psig and allow operation with one S/RV and its associated functions inoperable. Changes are proposed to Surveillance Requirements 3.1.7.7 and 3.4.3.1, and Limiting Conditions for Operation (LCOs) 3.4.3, 3.5.1, and 3.6.1.6.

The current Technical Specifications require that during continuous operation, all of the 11 S/RVs remain OPERABLE in the safety mode, 7 in the Automatic Depressurization System (ADS) mode, and 4 in the Low-Low Set (LLS) mode. If one S/RV is inoperable for longer than the duration specified in the applicable Action Statements, the plant must be placed in a Cold Shutdown Condition. Analyses have been completed which show that, with one S/RV out of service, all transient/accident criteria can still be met. Increasing the nominal mechanical relief setpoints will increase the simmer margin (i.e., the difference between the S/RV setpoints and the vessel steam dome pressure), thereby potentially reducing S/RV pilot leakage which may occur during a typical operating cycle. As a result of increasing the mechanical relief setpoints for the S/RVs, the Standby Liquid Control (SLC) System pump test discharge pressure is increased to 1232 psig. The HPCI and RCIC systems are capable of operating at this increased pressure.

In support of the proposed changes, General Electric (GE) prepared and issued NEDC-32041P, "Safety Review for Edwin I. Hatch Nuclear Power Plant Units 1 and 2 Updated Safety/Relief Valve Performance Requirements," Revision 2, dated April 1996, which is provided in Enclosure 5. The GE Affidavit for NEDC-32041P is provided in Enclosure 6.

PROPOSED CHANGES

Unless noted otherwise, the proposed changes apply to both Unit 1 and Unit 2.

Proposed Change One

In SR 3.1.7.7, the SLC pump test discharge pressure is increased from 1201 psig to 1232 psig.

Justification for Proposed Change One

The increase in the SLC pump discharge pressure corresponds to the increase in the S/RV mechanical relief setpoints which is discussed in detail in Proposed Change Two, and the pressure drop that occurs between the pump and the RPV. The original pump discharge pressure (1201 psig) was based on the minimum S/RV lift pressure of 1120 psig for both Units 1 and 2 (even though the Unit 1 lowest setpoint was 1110 psig).

The 31 psi increase is equivalent to the increase of the current lowest setpoint to the new setpoint, including the 3% tolerance. (The lowest setpoint and tolerance is 1120 psig + 3%, which is 1154 psig. The new setpoint and tolerance is 1150 psig + 3%, which is 1185 psig. Thus, the increase is equal to the maximum increase in setpoints, or 1185 psig minus 1154 psig, or 31 psig.)

The SLC pumps are positive displacement pumps, which deliver a constant flow rate regardless of discharge pressure. The pump motors are 40 hp, which are adequate for the pressure increase. The system design pressure is adequate for the increase in operating pressure.

Proposed Change Two

In LCO 3.4.3, the number of S/RVs that shall be OPERABLE is changed from "11" to "10 of 11." In SR 3.4.3.1, the nominal mechanical trip setpoints for all of the 11 S/RVs are increased to 1150 psig $\pm$ 34.5 psi. In LCO 3.5.1, the number of ADS S/RVs that shall be OPERABLE is changed from "seven" to "six of seven." In LCO 3.6.1.6, the number of LLS valves that shall be OPERABLE is changed from "four" to "three of four". The Conditions, Required Actions, and Completion Times associated with Technical Specifications 3.4.3, 3.5.1, and 3.6.1.6 are revised to remove the requirements for one S/RV inoperable.

Justification for Proposed Change Two

Currently, the electronic pressure switch actuation nominal trip setpoints are identical to the nominal mechanical trip setpoints. Following this change, the electronic pressure switches will retain S/RV groupings with staggered setpoints, below the requested mechanical setpoint of 1150 psig. The current Technical Specifications require S/RV setpoints to be within a 3% tolerance as follows:

Unit 1	Unit 2
4 S/RVs set at 1110 $\pm$ 33.3 psig	4 S/RVs set at 1120 $\pm$ 33.6 psig
4 S/RVs set at 1120 $\pm$ 33.6 psig	4 S/RVs set at 1130 $\pm$ 33.9 psig
3 S/RVs set at 1130 $\pm$ 33.9 psig	3 S/RVs set at 1140 $\pm$ 34.2 psig

NEDC-32041P (Enclosure 5) provides a detailed justification for allowing an upper value mechanical S/RV relief setpoint as high as 1195 psig, with one S/RV inoperable and allowing at least 50 psi margin to the ASME code upset limit (1375 psig). The 1195 psig upper limit bounds the 1150 psig nominal setpoint with a 3% drift. The GE evaluations also support additional changes to the S/RV performance requirements, allowing operation with one S/RV inoperable in the safety/relief mode, the ADS mode, and the LLS mode. Note that in the current Technical Specifications bases, it has been demonstrated that only 8 to 9 S/RVs are required in the safety/relief mode to maintain the reactor vessel below 1375 psig. Table 1-1 of NEDC-32041P compares the present and proposed Unit 1 and Unit 2 S/RV performance requirements. The following is a brief description of the analyses discussed in Enclosure 4:

Vessel Overpressure Analysis - Section 3.0 shows that an approximate 50 psi margin to the ASME Code upset limit for main steam isolation valve (MSIV) closure with flux scram is maintained. The analysis assumes one inoperable S/RV; 102% of 2558 MWt initial power; an initial steam dome pressure of 1058 psig, which is the Technical Specifications limit; and a 3% drift of the S/RV mechanical relief setpoint Note that this event is reanalyzed each cycle.

Thermal Limits - Section 4.0 shows that the fuel thermal limits; i. e., MINIMUM CRITICAL POWER RATIO (MCPR), are not affected by the proposed increase in the S/RV nominal setpoints, or by having only 10 of 11 S/RVs OPERABLE. Note that limiting transient events are reanalyzed each cycle.

ECCS/LOCA - Section 5.0 shows that the performance of the Emergency Core Cooling Systems (ECCS) is not significantly affected by the increase in nominal S/RV setpoint. ADS performance and the resulting peak clad temperatures following a loss of coolant accident (LOCA) are not significantly affected by having one inoperable ADS S/RV. Large-break LOCAs, which are limiting for Plant Hatch, are not affected by this change.

High Pressure System Performance - Section 6.0 shows that the performance of the High Pressure Coolant Injection (HPCI) and the Reactor Core Isolation Cooling (RCIC) Systems are not adversely affected by the proposed increase in the S/RV setpoints and operation with one inoperable S/RV.

Containment Performance - Section 7.0 provides justification that the proposed increase in S/RV setpoints does not adversely affect containment pressure/temperature response or containment dynamic loads. Specifically discussed is the impact of the increased setpoint on S/RV dynamic loads. Increasing the setpoint has an insignificant impact on the suppression pool volume/level requirements. Operation with one S/RV inoperable has an insignificant affect on containment performance.

Enclosure 2

Edwin I. Hatch Nuclear Plant
Request to Revise Technical Specifications:
Safety/Relief Valve Setpoint Change

10 CFR 50.92 Evaluation

The proposed changes revise the nominal trip setpoints of the safety/relief valves (S/RVs) to 1150 psig and allow for continuous operation with one S/RV and its associated functions inoperable.

10 CFR 50.92 Evaluation

Georgia Power Company (GPC) has reviewed the proposed Technical Specifications changes described above and determined they do not involve a significant hazards consideration based on the following:

1. The changes do not involve a significant increase in the probability or consequences of an accident previously evaluated. The S/RVs serve to mitigate postulated transients and accidents; the proposed changes do not alter the function or mode of operation of the S/RVs. The probability of an OPERABLE or an INOPERABLE S/RV inadvertently opening or failing to open or close is not affected by these changes. Therefore, the probability of an accident is not increased. Analysis[a] has been performed which considers the consequences of the various transients and accidents with the increased setpoints and with one S/RV inoperable. The analysis also considers the impact on ECCS performance, including HPCI and RCIC. The analysis has shown that the consequences of an accident with the increased S/RV setpoints and with one S/RV inoperable are not increased.

2. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously analyzed. Revising the nominal S/RV setpoint only changes when the S/RV opens in its mechanical relief mode; the operation of the S/RV and any other existing equipment is not altered. Operation with one S/RV inoperable was evaluated[a] and does not introduce any new failure modes. The impact on the operation and design of other systems and components has been evaluated,[a] including ECCS and SLC. No new operating modes or failure modes are introduced. Thus, these changes do not contribute to a new or different type of accident.

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a. GE Report NEDC-32041P, "Safety Review for Edwin I. Hatch Nuclear Power Plant Units 1 and 2 Updated Safety/Relief Valve Performance Requirements," Revision 2 (Proprietary), April 1996. Included as Enclosure 5.

3. The proposed changes do not involve a significant reduction in the margin of safety. The change in S/RV setpoint and operation with one S/RV inoperable was evaluated relative to the applicable safety system settings and found to remain acceptable. For example, the proposed changes were evaluated against peak clad temperature limits, ECCS operation, ASME Code overpressurization limits, the MINIMUM CRITICAL POWER RATIO Safety Limit, and containment design limits; no significant reduction in the margin of safety was identified[a].

a. GE Report NEDC-32041P, "Safety Review for Edwin I. Hatch Nuclear Power Plant Units 1 and 2 Updated Safety/Relief Valve Performance Requirements," Revision 2 (Proprietary), April 1996. Included as Enclosure 5.

Enclosure 3

Edwin I. Hatch Nuclear Plant
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Safety Relief Valve Setpoint Change

Page Change Instructions

Unit 1

Page	Instruction
3.1-23	Replace
3.4-7	Replace
3.4-8	Replace
3.5-1	Replace
3.5-2	Replace
3.5-3	Replace
3.5-4	Replace
3.5-5	Replace
3.5-6	Replace
3.6-18	Replace

Unit 2

Page	Instruction
3.1-23	Replace
3.4-7	Replace
3.4-8	Replace
3.5-1	Replace
3.5-2	Replace
3.5-3	Replace
3.5-4	Replace
3.5-5	Replace
3.5-6	Replace
3.5-6a/6b	Remove
3.6-18	Replace